

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Previously Presented) The optical glass of claim 11 exhibiting a refractive index in the range of from 1.75 to 2.0, an Abbé number in the range of from 20 to 28.5, and a viscosity at a liquid phase temperature equal to or higher than 0.4 Pa·s.

2. (Previously Presented) The optical glass of claim 108 exhibiting a refractive index in the range of from 1.75 to 2.0, an Abbé number in the range of from 20 to 28.5, and a glass transition temperature equal to or less than 540°C.

3. (Previously Presented) The optical glass of claim 109 exhibiting a refractive index in the range of from 1.75 to 2.0, an Abbé number in the range of from 20 to 28.5, and a transmittance λ 80 is equal to or less than 500 nm and a transmittance λ 5 is equal to or less than 385 nm.

Claims 4-10 (Canceled)

11. (Previously Presented) An optical glass comprising as molar percentages, 15-30 percent of P_2O_5 ; 0.5-15 percent of B_2O_3 ; 5-25 percent of Nb_2O_5 ; 6-40 percent of WO_3 ; 4-45 percent of at least one R'_2O selected from the group consisting of Li_2O , Na_2O , and K_2O , 1-5 percent of K_2O ; 0-30 percent (excluding 30 percent) of at least one RO selected from the group consisting of BaO , ZnO , and SrO ; and 2-9 percent of TiO_2 ; with the total content of the above-stated components being equal to or more than 95 percent, and wherein the optical glass comprises 2-30 molar percent of Li_2O and does not comprise an amount of GeO_2 .

12. (Original) The optical glass of claim 11 wherein said optical glass comprises 0-25 molar percent (excluding 0 molar percent) of BaO .

Claims 13-16 (Canceled)

17. (Previously Presented) The optical glass of claim 11 wherein said optical glass has the composition comprising, as essential components, P_2O_5 , B_2O_3 , WO_3 , Nb_2O_5 , TiO_2 , BaO , ZnO , Li_2O , Na_2O and K_2O or the composition comprising the above essential components and Sb_2O_3 .

18. (Previously Presented) The optical glass of claim 108 wherein said optical glass has the composition comprising, as essential components, P_2O_5 , B_2O_3 , WO_3 , Nb_2O_5 , TiO_2 , BaO , ZnO , Li_2O , Na_2O and K_2O or the composition comprising the above essential components and Sb_2O_3 .

19. (Previously Presented) The optical glass of claim 109 wherein said optical glass has the composition comprising, as essential components, P_2O_5 , B_2O_3 , WO_3 , Nb_2O_5 , TiO_2 , BaO , ZnO , Li_2O , Na_2O and K_2O or the composition comprising the above essential components and Sb_2O_3 .

Claims 20-58 (Canceled)

59. (Previously Presented) The optical glass of claim 11 wherein said optical glass comprises 0-11 percent of BaO .

60. (Previously Presented) The optical glass of claim 11 wherein said total quantity of Li_2O , Na_2O , and K_2O is equal to or more than 29 percent.

61. (Previously Presented) The optical glass of claim 11, wherein said optical glass has a density of oxygen atoms contained in the range of from 4.2×10^{22} to $5.2 \times 10^{22}/cm^3$.

62. (Previously Presented) The optical glass of claim 108 wherein said optical glass has a density of oxygen atoms contained in the range of from 4.2×10^{22} to $5.2 \times 10^{22}/cm^3$.

63. (Previously Presented) The optical glass of claim 109 wherein said optical glass has a density of oxygen atoms contained in the range of from 4.2×10^{22} to $5.2 \times 10^{22}/cm^3$.

Claims 64-69 (Canceled)

70. (Previously Presented) The optical glass of claim 11 wherein said optical glass exhibits a glass transition temperature equal to and/or less than 530°C and a yield point temperature equal to or less than 580°C.

71. (Previously Presented) The optical glass of claim 108 wherein said optical glass exhibits a glass transition temperature equal to and/or less than 530°C and a yield point temperature equal to or less than 580°C.

72. (Previously Presented) The optical glass of claim 109 wherein said optical glass exhibits a glass transition temperature equal to and/or less than 530°C and a yield point temperature equal to or less than 580°C.

73. (Previously Presented) The optical glass of claim 62 wherein said optical glass exhibits a glass transition temperature equal to and/or less than 530°C and a yield point temperature equal to or less than 580°C.

74. (Previously Presented) The optical glass of claim 11 wherein said optical glass exhibits a refractive index in the range of from 1.7 to 2.0, an Abbé number in the range of from 20 to 32.

75. (Previously Presented) The optical glass of claim 108 wherein said optical glass exhibits a refractive index in the range of from 1.7 to 2.0, an Abbé number in the range of from 20 to 32.

76. (Previously Presented) The optical glass of claim 109 wherein said optical glass exhibits a refractive index in the range of from 1.7 to 2.0, an Abbé number in the range of from 20 to 32.

77. (Previously Presented) The optical glass of claim 62 wherein said optical glass exhibits a refractive index in the range of from 1.7 to 2.0, an Abbé number in the range of from 20 to 32.

78. (Previously Presented) The optical glass of claim 11 wherein said optical glass exhibits a liquid phase temperature equal to or less than 970°C.

79. (Previously Presented) The optical glass of claim 108 wherein said optical glass exhibits a liquid phase temperature equal to or less than 970°C.

80. (Previously Presented) The optical glass of claim 109 wherein said optical glass exhibits a liquid phase temperature equal to or less than 970°C.

81. (Previously Presented) The optical glass of claim 62 wherein said optical glass exhibits a liquid phase temperature equal to or less than 970°C.

82. (Previously Presented) An optical part being composed of the optical glass of claim 1.

83. (Previously Presented) An optical part being composed of the optical glass of claim 2.

84. (Previously Presented) An optical part being composed of the optical glass of claim 3.

85. (Previously Presented) An optical part being composed of the optical glass of claim 12.

86. (Previously Presented) An optical part being composed of the optical glass of claim 11.

87. (Previously Presented) An optical part being composed of the optical glass of claim 17.

88. (Previously Presented) An optical part being composed of the optical glass of claim 60.

89. (Previously Presented) An optical part being composed of the optical glass of claim 108.

90. (Previously Presented) An optical part being composed of the optical glass of claim 109.

91. (Previously Presented) An optical part being composed of the optical glass of claim 62.

92. (Previously Presented) A glass preform being composed of the optical glass of claim 1.

93. (Previously Presented) A glass preform being composed of the optical glass of claim 2.

94. (Previously Presented) A glass preform being composed of the optical glass of claim 3.

Claims 95-100 (Canceled)

101. (Previously Presented) A glass preform being composed of the optical glass of claim 62.

102. (Withdrawn) A method of manufacturing glass preforms wherein a prescribed amount of a piece of molten glass flowing out of a flowout pipe is received in a receiving mold to prepare a glass preform made of the optical glass of claim 1.

103. (Withdrawn) A method of manufacturing glass preforms made of the optical glass of claim 1, comprising the steps of :

a molten glass glob is made to fall by causing molten glass flowing out of a flowout pipe to drip naturally or by cutting with a cutting blade;

the molten glass glob is received in a depression in a forming mold, and in the process, air, a nonreactive gas or some other gas is blown out through minute holes in the depressions; and,

a layer of air is generated between the molten glass glob and the inner surface of depression in the forming mold and the molten glass glob is maintained and cooled within the depression in a state of essential non-contact with the inner surface of the depression until at least a portion of the outer surface of the molten glass glob reaches a temperature not greater than the melting temperature.

104. (Withdrawn) A method of manufacturing glass products comprising the steps of:

heating the glass preform prepared by the method of claim 102; and
precisely press molding the heated glass preform to obtain a glass product.

105. (Previously Presented) The optical glass of claim 108 wherein said optical glass comprises 0-11 percent of BaO.

106. (Previously Presented) The optical glass of claim 109 wherein said total quantity of Li_2O , Na_2O , and K_2O is equal to or more than 29 percent.

107. (Withdrawn) A method of manufacturing glass products comprising the steps of:

heating the glass preform prepared by the method claim 103; and
precisely press molding the heated glass preform to obtain a glass product.

108. (Previously Presented) An optical glass comprising, as molar percentages, 17-30 percent of P_2O_5 , 1-10 percent of B_2O_3 (where the total quantity of P_2O_5 and B_2O_3 is 18-32 percent), 5-25 percent of WO_3 , 10-23 percent of Nb_2O_5 , 1-9 percent of TiO_2 (where the total quantity of WO_3 , Nb_2O_5 and TiO_2 is 28-40 percent), 5-22 percent Li_2O , 4-22 percent Na_2O , 0.5-7 percent K_2O (where the total quantity of Li_2O , Na_2O , and K_2O is 12-38 percent), 2-23 percent of BaO , 1-10 percent of ZnO (where the total quantity of BaO and ZnO is 3-25 percent), 0-8 percent of CaO , 0-8 percent of SrO , 0-4 percent of Al_2O_3 , 0-4 percent of Y_2O_3 , 0-1 percent of Sb_2O_3 , and 0-1 percent of As_2O_3 , where the total of all of these components is not less than 94 percent, and wherein the optical glass does not comprise an amount of GeO_2 .

109. (Previously Presented) An optical glass comprising, as molar percentages, 14-32 percent of P_2O_5 , 0.5-13 percent of B_2O_3 (where the total quantity of P_2O_5 and B_2O_3 is 16-32 percent), 5-40 percent of WO_3 , 5-23 percent of Nb_2O_5 , 1-9 percent of TiO_2 (where the total quantity of WO_3 , Nb_2O_5 and TiO_2 is 25-42 percent), 5-27 percent Li_2O , 3-27 percent Na_2O , 0.5-7 percent K_2O (where the total quantity of Li_2O , Na_2O , and K_2O is 12-43 percent), 0-23 percent of BaO , 0-17 percent of ZnO (where the total quantity of BaO and ZnO is 0-25 percent), 0-8 percent of CaO , 0-8

percent of SrO, 0-4 percent of Al_2O_3 , 0-4 percent of Y_2O_3 , 0-1 percent of Sb_2O_3 , and 0-1 percent of As_2O_3 , where the total of all of these components is not less than 94 percent, and wherein the optical glass does not comprise an amount of GeO_2 .

110. (Previously Presented) The optical glass of claim 108 wherein said total quantity of Li_2O , Na_2O , and K_2O is equal to or more than 29 percent.

111. (Previously Presented) A glass preform for precision press-molding composed of an optical glass comprising, as molar percentages, 15-30 percent of P_2O_5 , 0.5-15 percent of B_2O_3 ; 5-25 percent of Nb_2O_5 ; 6-40 percent of WO_3 ; 4-45 percent of at least one $\text{R}'_2\text{O}$ selected from the group consisting of Li_2O , Na_2O , and K_2O , 1-5 percent of K_2O ; 0-30 percent (excluding 30 percent) of at least one RO selected from the group consisting of BaO, ZnO, and SrO; and 2-9 percent of TiO_2 ; with the total content of the above-stated components being equal to or more than 95 percent.

112. (Previously Presented) The glass preform according to claim 111, wherein the optical glass comprises 0-25 molar percent (excluding 0 molar percent) of BaO.

113. (Previously Presented) The glass preform according to claim 111, wherein the optical glass has the composition comprising, as essential components, P_2O_5 , B_2O_3 , WO_3 , Nb_2O_5 , TiO_2 , BaO, ZnO, Li_2O , Na_2O , and K_2O or the composition comprising the above essential components and Sb_2O_3 .

114. (Previously Presented) The glass preform according to claim 111, wherein the total quantity of Li_2O , Na_2O , and K_2O is equal to or more than 29 percent.

115. (Previously Presented) A glass preform for precision press-molding composed of an optical glass comprising, as molar percentages, 17-30 percent of P_2O_5 , 1-10 percent of B_2O_3 (where the total quantity of P_2O_5 and B_2O_3 is 18-32 percent), 5-25 percent of WO_3 , 10-23 percent of Nb_2O_5 , 1-9 percent of TiO_2 (where the total quantity of WO_3 , Nb_2O_5 and TiO_2 is 28-40 percent), 5-22 percent of Li_2O , 4-22 percent of Na_2O , 0.5-7 percent of K_2O (where the total quantity of Li_2O , Na_2O , and K_2O is 12-38 percent), 2-23 percent of BaO , 1-10 percent of ZnO (where the total quantity of BaO and ZnO is 3-25 percent), 0-8 percent of CaO , 0-8 percent of SrO , 0-4 percent of Al_2O_3 , 0-4 percent of Y_2O_3 , 0-1 percent of Sb_2O_3 , and 0-1 percent of As_2O_3 , where the total of all of these components is not less than 94 percent.

116. (Previously Presented) A glass preform for precision press-molding composed of an optical glass comprising, as molar percentages, 14-32 percent of P_2O_5 , 0.5-13 percent of B_2O_3 (where the total quantity of P_2O_5 and B_2O_3 is 16-32 percent), 5-40 percent of WO_3 , 5-23 percent of Nb_2O_5 , 1-9 percent of TiO_2 (where the total quantity of WO_3 , Nb_2O_5 and TiO_2 is 25-42 percent), 5-27 percent of Li_2O , 3-27 percent of Na_2O , 0.5-7 percent of K_2O (where the total quantity of Li_2O , Na_2O , and K_2O is 12-43 percent), 0-23 percent of BaO , 0-17 percent of ZnO (where the

total quantity of BaO and ZnO is 0-25 percent), 0-8 percent of CaO, 0-8 percent of SrO, 0-4 percent of Al_2O_3 , 0-4 percent of Y_2O_3 , 0-1 percent of Sb_2O_3 , and 0-1 percent of As_2O_3 , where the total of all of these components is not less than 94 percent.

117. (Previously Presented) An optical glass comprising, as molar percentages:

12-34 percent of P_2O_5 ;

0.2-15 percent of B_2O_3 , where the total quantity of P_2O_5 and B_2O_3 is 15-35 percent;

2-40 percent of WO_3 ;

0-25 percent of Nb_2O_5 ;

0 to 10 percent of TiO_2 , where the total quantity of WO_3 , Nb_2O_5 and TiO_2 is 20-45 percent;

0-25 percent of BaO;

0-20 percent of ZnO, where the total quantity of BaO and ZnO is less than 30 percent;

2-30 percent of Li_2O ;

2-30 percent of Na_2O ;

0-15 percent of K_2O , where the total quantity of Li_2O , Na_2O , and K_2O is 29-45 percent;

0-10 percent of CaO;

0-10 percent of SrO;

0-5 percent of Al_2O_3 ;

0-5 percent of Y_2O_3 ;

0-1 percent of Sb_2O_3 ; and

0-1 percent of As_2O_3 , where the total quantity of all of the above-listed components is equal to or more than 94 percent; and wherein said optical glass comprises, as essential components, P_2O_5 , B_2O_3 , WO_3 , Nb_2O_5 , TiO_2 , BaO , ZnO , Li_2O , Na_2O and K_2O , and does not comprises an amount of GeO_2 .

118. (Previously Presented) An optical glass comprising, as molar percentages:

12-34 percent of P_2O_5 ;

0.2-15 percent of B_2O_3 , where the total quantity of P_2O_5 and B_2O_3 is 15-35 percent;

2-40 percent of WO_3 ;

0-25 percent of Nb_2O_5 ;

0 to 10 percent of TiO_2 , where the total quantity of WO_3 , Nb_2O_5 and TiO_2 is 20-45 percent;

0-11 percent of BaO ;

0-20 percent of ZnO , where the total quantity of BaO and ZnO is less than 30 percent;

2-30 percent of Li_2O ;

2-30 percent of Na_2O ;

0-15 percent of K_2O , where the total quantity of Li_2O , Na_2O and K_2O is 10-45 percent;

0-10 percent of CaO;

0-10 percent of SrO;

0-5 percent of Al₂O₃;

0-5 percent of Y₂O₃;

0-1 percent of Sb₂O₃; and

0-1 percent of As₂O₃, where the total quantity of all of the above-listed components is equal to or more than 94 percent; and wherein said optical glass comprises, as essential components, P₂O₅, B₂O₃, WO₃, Nb₂O₅, TiO₂, BaO, ZnO, Li₂O, Na₂O and K₂O, and does not comprises an amount of GeO₂.

119. (Previously Presented) The optical glass of claim 117 wherein said optical glass comprises Sb₂O₃.

120. (Previously Presented) The optical glass of claim 118 wherein said optical glass comprises Sb₂O₃.

121 (Previously Presented) The optical glass of claim 117 wherein the content of TiO₂ is 2 percent or more.

122. (Previously Presented) The optical glass of claim 117 wherein the content of K₂O is 1 percent of more.

123. (Previously Presented) The optical glass of claim 118 wherein the content of TiO_2 is 2 percent or more.

124. (Previously Presented) The optical glass of claim 118 wherein the content of K_2O is 1 percent or more.

125. (Previously Presented) An optical glass exhibiting a refractive index in the range of from 1.75 to 2.0, an Abbé number in the range of from 20 to 28.5, and a viscosity at the liquid phase temperature equal to or higher than $0.4 \text{ Pa}\cdot\text{s}$, wherein said optical glass has a composition comprising, as essential components, P_2O_5 , B_2O_3 , WO_3 , TiO_2 , and K_2O , does not comprise substantial amount of GeO_2 , and comprises, as molar percentages, 12-34 percent of P_2O_5 ; 0.2-15 percent of B_2O_3 ; 0-25 percent of Nb_2O_5 ; 0-40 percent (excluding 0 percent) of WO_3 ; 2-10 percent of TiO_2 ; 4-45 percent of at least one $\text{R}'_2\text{O}$ selected from the group consisting of Li_2O , Na_2O , and K_2O where the quantity of K_2O is 1-15 percent; and 0-30 percent (excluding 30 percent) of at least one RO selected from the group consisting of BaO , ZnO , and SrO ; with the total content of the above-stated components being equal to or more than 94 percent.

126. (Previously Presented) An optical glass exhibiting a refractive index in the range of from 1.75 to 2.0, an Abbé number in the range of from 20 to 28.5, and a glass transition temperature equal to or less than 540°C . wherein said optical glass has a composition comprising, as essential components, P_2O_5 , B_2O_3 , WO_3 , TiO_2 , and K_2O , does not comprise substantial amount of GeO_2 ; and comprises, as molar

percentages, 12-34 percent of P_2O_5 ; 0.2-15 percent of B_2O_3 ; 0-25 percent of Nb_2O_5 ; 0-40 percent (excluding 0 percent) of WO_3 ; 2-10 percent of TiO_2 ; 4-45 percent of at least one R'_2O selected from the group consisting of Li_2O , Na_2O , and K_2O where the quantity of K_2O is 1-15 percent; and 0-30 percent (excluding 30 percent) of at least one RO selected from the group consisting of BaO , ZnO , and SrO ; with the total content of the above-stated components being equal to or more than 94 percent.

127. (Previously Presented) An optical glass exhibiting a refractive index in the range of from 1.75 to 2.0, an Abbé number in the range of from 20 to 28.5, and a transmittance λ_{80} equal to or less than 500 nm and a transmittance λ_5 equal to or less than 385nm, wherein said optical glass has a composition comprising, as essential components, P_2O_5 , B_2O_3 , WO_3 , and TiO_2 , does not comprise substantial amount of GeO_2 , and comprises, as molar percentages, 12-34 percent of P_2O_5 ; 0.2-15 percent of B_2O_3 ; 0-25 percent of Nb_2O_5 ; 0-40 percent (excluding 0 percent) of WO_3 ; 2-10 percent of TiO_2 ; 4-45 percent of at least one R'_2O selected from the group consisting of Li_2O , Na_2O , and K_2O ; and 0-30 percent (excluding 30 percent) of at least one RO selected from the group consisting of BaO , ZnO , and SrO ; with the total content of the above-stated components being equal to or more than 94 percent.

128. (Previously Presented) An optical glass exhibiting a refractive index in the range of from 1.75 to 2.0, an Abbé number in the range of from 20 to 28.5, a liquid phase temperature equal to or less than 970°C, and a transmittance λ_{80} equal to or less than 500 nm and a transmittance λ_5 equal to or less than 385nm, wherein

said optical glass has a composition comprising, as essential components, P_2O_5 , B_2O_3 , WO_3 , and TiO_2 , does not comprise substantial amount of GeO_2 , and comprises, as molar percentages, 12-34 percent of P_2O_5 ; 0.2-15 percent of B_2O_3 ; 0-25 percent of Nb_2O_5 ; 0-40 percent (excluding 0 percent) of WO_3 ; 2-10 percent of TiO_2 ; 4-45 percent of at least one R'_2O selected from the group consisting of Li_2O , Na_2O , and K_2O ; and 0-30 percent (excluding 30 percent) of at least one RO selected from the group consisting of BaO , ZnO , and SrO ; with the total content of the above-stated components being equal to or more than 94 percent.

129. (Previously Presented) An optical glass exhibiting a refractive index in the range of from 1.75 to 2.0, an Abbé number in the range of from 20 to 28.5, a liquid phase temperature equal to or less than $970^{\circ}C$, and a transmittance λ_{80} equal to or less than 500 nm and a transmittance λ_5 equal to or less than 385nm, wherein said optical glass has a composition comprising, as essential components, P_2O_5 , B_2O_3 , WO_3 , TiO_2 and K_2O , does not comprise substantial amount of GeO_2 , and comprises, as molar percentages, 12-34 percent of P_2O_5 ; 0.2-15 percent of B_2O_3 ; 0-25 percent of Nb_2O_5 ; 0-40 percent (excluding 0 percent) of WO_3 ; 2-10 percent of TiO_2 ; 4-45 percent of at least one R'_2O selected from the group consisting of Li_2O , Na_2O , and K_2O where the quantity of K_2O is 1-15 percent; and 0-30 percent (excluding 30 percent) of at least one RO selected from the group consisting of BaO , ZnO , and SrO ; with the total content of the above-stated components being equal to or more than 94 percent.

130. (Previously Presented) An optical glass exhibiting a refractive index in the range of from 1.75 to 2.0, an Abbé number in the range of from 20 to 28.5, and a viscosity at the liquid phase temperature equal to or higher than 0.4 Pa•s, wherein said optical glass has a composition comprising, as essential components, P_2O_5 , B_2O_3 , WO_3 , TiO_2 , and K_2O , does not comprise substantial amount of GeO_2 , and comprises, as molar percentages, 12-34 percent of P_2O_5 ; 0.2-15 percent of B_2O_3 where the total quantity of P_2O_5 and B_2O_3 is 15-35 percent; 0-40 percent (excluding 0 percent) of WO_3 ; 0-25 percent of Nb_2O_5 ; 2 to 10 percent of TiO_2 where the total quantity of WO_3 , Nb_2O_5 , and TiO_2 is 20-45 percent; 0-25 percent of BaO ; 0-20 percent of ZnO where the total quantity of BaO and ZnO is less than 30 percent; 2-30 percent of Li_2O ; 2-30 percent of Na_2O ; 1-15 percent of K_2O where the total quantity of Li_2O , Na_2O , and K_2O is 10-45 percent; 0-10 percent of CaO ; 0-10 percent of SrO ; 0-5 percent of Al_2O_3 ; 0-5 percent of Y_2O_3 ; 0-1 percent of Sb_2O_3 ; and 0-1 percent of As_2O_3 ; where the total quantity of all of the above-listed components is equal to or more than 94 percent.

131. (Previously Presented) An optical glass exhibiting a refractive index in the range of from 1.75 to 2.0, an Abbé number in the range of from 20 to 28.5, and a glass transition temperature equal to or less than 540°C, wherein said optical glass has a composition comprising, as essential components, P_2O_5 , B_2O_3 , WO_3 , TiO_2 , and K_2O , does not comprise substantial amount of GeO_2 , and comprises, as molar percentages, 12-34 percent of P_2O_5 ; 0.2-15 percent of B_2O_3 where the total quantity of P_2O_5 and B_2O_3 is 15-35 percent; 0-40 percent (excluding 0 percent) of WO_3 ; 0-25 percent of Nb_2O_5 ; 2 to 10 percent of TiO_2 where the total quantity of WO_3 , Nb_2O_5 ,

and TiO_2 is 20-45 percent; 0-25 percent of BaO ; 0-20 percent of ZnO where the total quantity of BaO and ZnO is less than 30 percent; 2-30 percent of Li_2O ; 2-30 percent of Na_2O ; 1-15 percent of K_2O where the total quantity of Li_2O , Na_2O , and K_2O is 10-45 percent; 0-10 percent of CaO ; 0-10 percent of SrO ; 0-5 percent of Al_2O_3 ; 0-5 percent of Y_2O_3 ; 0-1 percent of Sb_2O_3 ; and 0-1 percent of As_2O_3 ; where the total quantity of all of the above-listed components is equal to or more than 94 percent.

132. (Previously Presented) An optical glass exhibiting a refractive index in the range of from 1.75 to 2.0, an Abbé number in the range of from 20 to 28.5, and a transmittance λ_{80} equal to or less than 500 nm and a transmittance λ_5 equal to or less than 385 nm, wherein said optical glass has a composition comprising, as essential components, P_2O_5 , B_2O_3 , WO_3 , and TiO_2 , does not comprise substantial amount of GeO_2 , and comprises, as molar percentages, 12-34 percent of P_2O_5 , 0.2-15 percent of B_2O_3 where the total quantity of P_2O_5 and B_2O_3 is 15-35 percent; 0-40 percent excluding 0 percent of WO_3 ; 0-25 percent of Nb_2O_5 ; 2 to 10 percent of TiO_2 where the total quantity of WO_3 , Nb_2O_5 , and TiO_2 is 20-45 percent; 0-25 percent of BaO ; 0-20 percent of ZnO where the total quantity of BaO and ZnO is less than 30 percent; 2-30 percent of Li_2O ; 2-30 percent of Na_2O ; 0-15 percent of K_2O where the total quantity of Li_2O , Na_2O , and K_2O is 10-45 percent; 0-10 percent of CaO ; 0-10 percent of SrO ; 0-5 percent of Al_2O_3 ; 0-5 percent of Y_2O_3 ; 0-1 percent of Sb_2O_3 ; and 0-1 percent of As_2O_3 ; where the total quantity of all of the above-listed components is equal to or more than 94 percent.

133. (Previously Presented) An optical glass exhibiting a refractive index in the range of from 1.75 to 2.0, an Abbé number in the range of from 20 to 28.5, a liquid phase temperature equal to or less than 970°C, and a transmittance λ_{80} equal to or less than 500 nm and a transmittance λ_5 equal to or less than 385 nm, wherein said optical glass has a composition comprising, as essential components, P_2O_5 , B_2O_3 , WO_3 , and TiO_2 , does not comprise substantial amount of GeO_2 , and comprises, as molar percentages, 12-34 percent of P_2O_5 ; 0.2-15 percent of B_2O_3 where the total quantity of P_2O_5 and B_2O_3 is 15-35 percent; 0-40 percent excluding 0 percent of WO_3 ; 0-25 percent of Nb_2O_5 ; 2 to 10 percent of TiO_2 where the total quantity of WO_3 , Nb_2O_5 , and TiO_2 is 20-45 percent; 0-25 percent of BaO ; 0-20 percent of ZnO where the total quantity of BaO and ZnO is less than 30 percent; 2-30 percent of Li_2O ; 2-30 percent of Na_2O ; 0-15 percent of K_2O where the total quantity of Li_2O , Na_2O , and K_2O is 10-45 percent; 0-10 percent of CaO ; 0-10 percent of SrO ; 0-5 percent of Al_2O_3 ; 0-5 percent of Y_2O_3 ; 0-1 percent of Sb_2O_3 ; and 0-1 percent of As_2O_3 ; where the total quantity of all of the above-listed components is equal to or more than 94 percent.

134. (Previously Presented) An optical glass exhibiting a refractive index in the range of from 1.75 to 2.0, an Abbé number in the range of from 20 to 28.5, a liquid phase temperature equal to or less than 970°C, and a transmittance λ_{80} equal to or less than 500 nm and a transmittance λ_5 equal to or less than 385 nm, wherein said optical glass has the composition comprising, as essential components, P_2O_5 , B_2O_3 , WO_3 , TiO_2 and K_2O , does not comprise substantial amount of GeO_2 , and comprises, as molar percentages, 12-34 percent of P_2O_5 ; 0.2-15 percent of B_2O_3

where the total quantity of P_2O_5 and B_2O_3 is 15-35 percent; 0-40 percent excluding 0 percent of WO_3 ; 0-25 percent of Nb_2O_5 ; 2 to 10 percent of TiO_2 where the total quantity of WO_3 , Nb_2O_5 , and TiO_2 is 20-45 percent; 0-25 percent of BaO ; 0-20 percent of ZnO where the total quantity of BaO and ZnO is less than 30 percent; 2-30 percent of Li_2O ; 2-30 percent of Na_2O ; 1-15 percent of K_2O where the total quantity of Li_2O , Na_2O , and K_2O is 10-45 percent; 0-10 percent of CaO ; 0-10 percent of SrO ; 0-5 percent of Al_2O_3 ; 0-5 percent of Y_2O_3 ; 0-1 percent of Sb_2O_3 ; and 0-1 percent of As_2O_3 ; where the total quantity of all of the above-listed components is equal to or more than 94 percent.

135. (Previously Presented) An optical glass having a composition comprising, as essential components, P_2O_5 , B_2O_3 , Nb_2O_5 , WO_3 , TiO_2 , and K_2O , not comprising substantial amount of GeO_2 , and comprising, as molar percentages, 15-30 percent of P_2O_5 ; 0.5-15 percent of B_2O_3 ; 5-25 percent of Nb_2O_5 ; 0-40 percent (excluding 0 percent) of WO_3 ; 2-10 percent of TiO_2 ; 4-45 percent of at least one R'_2O selected from the group consisting of Li_2O , Na_2O , and K_2O where the quantity of K_2O is 1-15 percent; and 0-30 percent (excluding 30 percent) of at least one RO selected from among BaO , ZnO , and SrO ; with the total content of the above-stated components being equal to or more than 95 percent.

136. (Previously Presented) An optical glass having a composition comprising, as essential components, P_2O_5 , B_2O_3 , Nb_2O_5 , WO_3 , TiO_2 , and K_2O , not comprising substantial amount of GeO_2 , and comprising, as molar percentages, 15-30 percent of P_2O_5 ; 0.5-15 percent of B_2O_3 ; 5-25 percent of Nb_2O_5 ; 0-40 percent

(excluding 0 percent) of WO_3 ; not more than 10 percent of TiO_2 ; 4-45 percent of at least one $\text{R}'_2\text{O}$ selected from the group consisting of Li_2O , Na_2O , and K_2O where the quantity of K_2O is 1-15 percent; and 0-30 percent (excluding 0 percent and 30 percent) of at least one RO selected from the group consisting of BaO , ZnO , and SrO .

137. (Previously Presented) An optical glass comprising, as molar percentages, 12-34 percent of P_2O_5 ; 0.2-15 percent of B_2O_3 where the total quantity of P_2O_5 and B_2O_3 is 15-35 percent; 2-40 percent of WO_3 ; 0-25 percent of Nb_2O_5 ; 2 to 10 percent of TiO_2 where the total quantity of WO_3 , Nb_2O_5 , and TiO_2 is 20-45 percent; 0-25 percent of BaO ; 0-20 percent of ZnO where the total quantity of BaO and ZnO is less than 30 percent; 2-30 percent of Li_2O ; 2-30 percent of Na_2O ; 1-15 percent of K_2O where the total quantity of Li_2O , Na_2O , and K_2O is 29-45 percent; 0-10 percent of CaO ; 0-10 percent of SrO ; 0-5 percent of Al_2O_3 ; 0-5 percent of Y_2O_3 ; 0-1 percent of Sb_2O_3 ; and 0-1 percent of As_2O_3 ; where the total quantity of all of the above-listed components is equal to or more than 94 percent, as well as not comprising a substantial amount of GeO_2 .

138. (Previously Presented) An optical glass comprising, as molar percentage, 12-34 percent of P_2O_5 ; 0.2-15 percent of B_2O_3 where the total quantity of P_2O_5 and B_2O_3 is 15-35 percent; 2-40 percent of WO_3 ; 0-25 percent of Nb_2O_5 ; 2 to 10 percent of TiO_2 where the total quantity of WO_3 , Nb_2O_5 , and TiO_2 is 20-45 percent; 0-11 percent of BaO ; 0-20 percent of ZnO where the total quantity of BaO and ZnO is less than 30 percent; 2-30 percent of Li_2O ; 2-30 percent of Na_2O ; 1-15

percent of K_2O where the total quantity of Li_2O , Na_2O , and K_2O is 10-45 percent; 0-10 percent of CaO ; 0-10 percent of SrO ; 0-5 percent of Al_2O_3 ; 0-5 percent of Y_2O_3 ; 0-1 percent of Sb_2O_3 ; and 0-1 percent of As_2O_3 ; where the total quantity of all of the above-listed components is equal to or more than 94 percent, as well as not comprising a substantial amount of GeO_2 .

139. (Previously Presented) An optical glass having a composition comprising, as essential components, P_2O_5 , B_2O_3 , WO_3 , Nb_2O_5 , TiO_2 , BaO , ZnO , Li_2O , Na_2O and K_2O or the composition comprising the above essential components and Sb_2O_3 , and comprising, as molar percentages, 12-34 percent of P_2O_5 ; 0.2-15 percent of B_2O_3 where the total quantity of P_2O_5 and B_2O_3 is 15-35 percent; 2-40 percent of WO_3 ; 0-25 percent (excluding 0 percent) of Nb_2O_5 ; 0 to 10 percent of TiO_2 where the total quantity of WO_3 , Nb_2O_5 , and TiO_2 is 20-45 percent; 0-25 percent (excluding 0 percent) of BaO ; 0-20 percent (excluding 0 percent) of ZnO where the total quantity of BaO and ZnO is less than 30 percent; 2-30 percent of Li_2O ; 2-30 percent of Na_2O ; 0-15 percent (excluding 0 percent) of K_2O where the total quantity of Li_2O , Na_2O , and K_2O is 29-45 percent; and 0-1 percent of Sb_2O_3 .

140. (Previously Presented) An optical glass having a composition comprising, as essential components, P_2O_5 , B_2O_3 , WO_3 , Nb_2O_5 , TiO_2 , BaO , ZnO , Li_2O , Na_2O and K_2O or the composition comprising the above essential components and Sb_2O_3 , and comprising, as molar percentages, 12-34 percent of P_2O_5 ; 0.2-15 percent of B_2O_3 where the total quantity of P_2O_5 and B_2O_3 is 15-35 percent; 2-40 percent of WO_3 ; 0-25 percent (excluding 0 percent) of Nb_2O_5 ; 0 to 10 percent

(excluding 0 percent) of TiO , where the total quantity of WO_3 , Nb_2O_5 , and TiO_2 is 20-45 percent; 0-11 percent (excluding 0 percent) of BaO ; 0-20 percent (excluding 0 percent) of ZnO where the total quantity of BaO and ZnO is less than 30 percent; 2-30 percent of Li_2O ; 2-30 percent of Na_2O ; 0-15 percent (excluding 0 percent) of K_2O where the total quantity of Li_2O , Na_2O , and K_2O is 10-45 percent; and 0-1 percent of Sb_2O_3 .

141. (Previously Presented) A precision press molding glass preform composed of the optical glass of claim 125.

142. (Previously Presented) A precision press molding glass preform composed of the optical glass of claim 126.

143. (Previously Presented) A precision press molding glass preform composed of the optical glass of claim 127.

144. (Previously Presented) A precision press molding glass preform composed of the optical glass of claim 128.

145. (Previously Presented) A precision press molding glass preform composed of the optical glass of claim 129.

146. (Previously Presented) A precision press molding glass preform composed of the optical glass of claim 130.

147. (Previously Presented) A precision press molding glass preform composed of the optical glass of claim 131.

148. (Previously Presented) A precision press molding glass preform composed of the optical glass of claim 132.

149. (Previously Presented) A precision press molding glass preform composed of the optical glass of claim 133.

150. (Previously Presented) A precision press molding glass preform composed of the optical glass of claim 134.

151. (Previously Presented) A precision press molding glass preform composed of the optical glass of claim 135.

152. (Previously Presented) A precision press molding glass preform composed of the optical glass of claim 136.

153. (Previously Presented) A precision press molding glass preform composed of the optical glass of claim 137.

154. (Previously Presented) A precision press molding glass preform composed of the optical glass of claim 138.

155. (Previously Presented) A precision press molding glass preform composed of the optical glass of claim 139.

156. (Previously Presented) A precision press molding glass preform composed of the optical glass of claim 140.

157. (Previously Presented) A precision press molding glass preform composed of an optical glass exhibiting a refractive index in the range of from 1.75 to 2.0, an Abbé number in the range of from 20 to 28.5, and a viscosity at the liquid phase temperature equal to or higher than 0.4 Pa s, wherein said optical glass has a composition comprising, as essential components, P_2O_5 , B_2O_3 , TiO_2 , Li_2O , Na_2O , and K_2O and comprises, as molar percentages, 12-34 percent of P_2O_5 ; 0.2-15 percent of B_2O_3 ; 0-25 percent of Nb_2O_5 ; 0-40 percent of WO_3 ; 2-10 percent of TiO_2 ; 4-45 percent of at least one R'_2O selected from the group consisting of Li_2O , Na_2O , and K_2O where the quantity of Li_2O is 2-30 percent, the quantity of Na_2O is 2-30 percent, and the quantity of K_2O is 1-15 percent; and 0-30 percent (excluding 30 percent) of at least one RO selected from the group consisting of BaO, ZnO, and SrO; with the total content of the above-stated components being equal to or more than 94 percent.

158. (Previously Presented) A precision press molding glass preform composed of an optical glass exhibiting a refractive index in the range of from 1.75 to 2.0, an Abbé number in the range of from 20 to 28.5, and a glass transition

temperature equal to or less than 540°C, wherein said optical glass has a composition comprising, as essential components, P_2O_5 , B_2O_3 , TiO_2 , Li_2O , Na_2O and K_2O and comprises, as molar percentages, 12-34 percent of P_2O_5 ; 0.2-15 percent of B_2O_3 ; 0-25 percent of Nb_2O_5 ; 0-40 percent of WO_3 ; 2-10 percent of TiO_2 ; 4-45 percent of at least one R'_2O selected from the group consisting of Li_2O , Na_2O , and K_2O where the quantity of Li_2O is 2-30 percent, the quantity of Na_2O is 2-30 percent, and the quantity of K_2O is 1-15 percent; and 0-30 percent (excluding 30 percent) of at least one RO selected from the group consisting of BaO, ZnO, and SrO; with the total content of the above-stated components being equal to or more than 94 percent.

159. (Previously Presented) A precision press molding glass preform composed of an optical glass exhibiting a refractive index in the range of from 1.75 to 2.0, an Abbé number in the range of from 20 to 28.5, and a transmittance λ_{80} is equal to or less than 500nm and a transmittance λ_5 is equal to or less than 385nm, wherein said optical glass has a composition comprising, as essential components, P_2O_5 , B_2O_3 , TiO_2 , Li_2O , and Na_2O , and comprises, as molar percentages, 12-34 percent of P_2O_5 ; 0.2-15 percent of B_2O_3 ; 0-25 percent of Nb_2O_5 ; 0-40 percent of WO_3 ; 2-10 percent of TiO_2 ; 4-45 percent of at least one R'_2O selected from the group consisting of Li_2O , Na_2O , and K_2O where the quantity of Li_2O is 2-30 percent, the quantity of Na_2O is 2-30 percent, and the quantity of K_2O is 0-15 percent; and 0-30 percent (excluding 30 percent) of at least one RO selected from the group consisting of BaO, ZnO, and SrO; with the total content of the above-stated components being equal to or more than 94 percent.

160. (Previously Presented) A precision press molding glass preform composed of an optical glass exhibiting a refractive index in the range of from 1.75 to 2.0, an Abbé number in the range of from 20 to 28.5, a liquid phase temperature equal to or less than 970°C, and a transmittance λ_{80} is equal to or less than 500nm and a transmittance λ_5 is equal to or less than 385nm, wherein said optical glass has a composition comprising, as essential components, P_2O_5 , B_2O_3 , TiO_2 , Li_2O , and Na_2O , and comprises, as molar percentages, 12-34 percent of P_2O_5 ; 0.2-15 percent of B_2O_3 ; 0-25 percent of Nb_2O_5 ; 0-40 percent of WO_3 ; 2-10 percent of TiO_2 ; 4-45 percent of at least one R'_2O selected from the group consisting of Li_2O , Na_2O , and K_2O where the quantity of Li_2O is 2-30 percent, the quantity of Na_2O is 2-30 percent, and the quantity of K_2O is 0-15 percent); and 0-30 percent (excluding 30 percent) of at least one RO selected from the group consisting of BaO, ZnO, and SrO; with the total content of the above-stated components being equal to or more than 94 percent.

161. (Previously Presented) A precision press molding glass preform composed of an optical glass exhibiting a refractive index in the range of from 1.75 to 2.0, an Abbé number in the range of from 20 to 28.5, and a transmittance λ_{80} is equal to or less than 500nm and a transmittance λ_5 is equal to or less than 385nm, wherein said optical glass has a composition comprising, as essential components, P_2O_5 , B_2O_3 , TiO_2 , Li_2O , Na_2O , and K_2O , and comprises, as molar percentages, 12-34 percent of P_2O_5 ; 0.2-15 percent of B_2O_3 ; 0-25 percent of Nb_2O_5 ; 0-40 percent of WO_3 ; 2-10 percent of TiO_2 ; 4-45 percent of at least one R'_2O selected from the

group consisting of Li_2O , Na_2O , and K_2O where the quantity of Li_2O is 2-30 percent, the quantity of Na_2O is 2-30 percent, and the quantity of K_2O is 1-15 percent; and 0-30 percent (excluding 30 percent) of at least one RO selected from the group consisting of BaO , ZnO , and SrO ; with the total content of the above-stated components being equal to or more than 94 percent.

162. (Previously Presented) A precision press molding glass preform composed of an optical glass exhibiting a refractive index in the range of from 1.75 to 2.0, an Abbé number in the range of from 20 to 28.5, and a viscosity at the liquid phase temperature equal to or higher than 0.4 Pa s, wherein said optical glass has a composition comprising, as essential components, P_2O_5 , B_2O_3 , TiO_2 , Li_2O , Na_2O , and K_2O , and comprises, as molar percentages, 12-34 percent of P_2O_5 ; 0.2-15 percent of B_2O_3 where the total quantity of P_2O_5 and B_2O_3 is 15-35 percent; 0-40 percent of WO_3 ; 0-25 percent of Nb_2O_5 ; 2-10 percent of TiO_2 where the total quantity of WO_3 , Nb_2O_5 , and TiO_2 is 20-45 percent; 0-25 percent of BaO ; 0-20 percent of ZnO where the total quantity of BaO and ZnO is less than 30 percent; 2-30 percent of Li_2O ; 2-30 percent of Na_2O ; 1-15 percent of K_2O where the total quantity of Li_2O , Na_2O , and K_2O is 10-45 percent; 0-10 percent of CaO ; 0-10 percent of SrO ; 0-5 percent of Al_2O_3 ; 0-5 percent of Y_2O_3 ; 0-1 percent of Sb_2O_3 ; and 0-1 percent of As_2O_3 ; where the total quantity of all of the above-listed components is equal to or more than 94 percent.

163. (Previously Presented) A precision press molding glass preform composed of an optical glass exhibiting a refractive index in the range of from 1.75 to

2.0, an Abbé number in the range of from 20 to 28.5, and a glass transition temperature equal to or less than 540°C, wherein said optical glass has a composition comprising, as essential components, P_2O_5 , B_2O_3 , TiO_2 , Li_2O , Na_2O , and K_2O , and comprises, as molar percentages, 12-34 percent of P_2O_5 ; 0.2-15 percent of B_2O_3 where the total quantity of P_2O_5 and B_2O_3 is 15-35 percent; 0-40 percent of WO_3 ; 0-25 percent of Nb_2O_5 ; 2-10 percent of TiO_2 where the total quantity of WO_3 , Nb_2O_5 , and TiO_2 is 20-45 percent; 0-25 percent of BaO ; 0-20 percent of ZnO where the total quantity of BaO and ZnO is less than 30 percent; 2-30 percent of Li_2O ; 2-30 percent of Na_2O ; 1-15 percent of K_2O where the total quantity of Li_2O , Na_2O , and K_2O is 10-45 percent; 0-10 percent of CaO ; 0-10 percent of SrO ; 0-5 percent of Al_2O_3 ; 0-5 percent of Y_2O_3 ; 0-1 percent of Sb_2O_3 ; and 0-1 percent of As_2O_3 ; where the total quantity of all of the above-listed components is equal to or more than 94 percent.

164. (Previously Presented) A precision press molding glass preform composed of an optical glass exhibiting a refractive index in the range of from 1.75 to 2.0, an Abbé number in the range of from 20 to 28.5, and a transmittance λ_{80} is equal to or less than 500nm and a transmittance λ_5 is equal to or less than 385nm, wherein said optical glass has a composition comprising, as essential components, P_2O_5 , B_2O_3 , TiO_2 , Li_2O , and Na_2O , and comprises, as molar percentages, 12-34 percent of P_2O_5 ; 0.2-15 percent of B_2O_3 where the total quantity of P_2O_5 and B_2O_3 is 15-35 percent; 0-40 percent (excluding 0 percent) of WO_3 ; 0-25 percent of Nb_2O_5 ; 2-10 percent of TiO_2 where the total quantity of WO_3 , Nb_2O_5 , and TiO_2 is 20-45 percent; 0-25 percent of BaO ; 0-20 percent of ZnO where the total quantity of BaO

and ZnO is less than 30 percent; 2-30 percent of Li_2O ; 2-30 percent of Na_2O ; 0-15 percent of K_2O where the total quantity of Li_2O , Na_2O , and K_2O is 10-45 percent; 0-10 percent of CaO ; 0-10 percent of SrO ; 0-5 percent of Al_2O_3 ; 0-5 percent of Y_2O_3 ; 0-1 percent of Sb_2O_3 ; and 0-1 percent of As_2O_3 ; where the total quantity of all of the above-listed components is equal to or more than 94 percent.

165. (Previously Presented) A precision press molding glass preform composed of an optical glass exhibiting a refractive index in the range of from 1.75 to 2.0, an Abbé number in the range of from 20 to 28.5, a liquid phase temperature equal to or less than 970°C , and a transmittance λ_{80} is equal to or less than 500nm and a transmittance λ_5 is equal to or less than 385nm, wherein said optical glass has a composition comprising, as essential components, P_2O_5 , B_2O_3 , TiO_2 , Li_2O , and Na_2O , and comprises, as molar percentages, 12-34 percent of P_2O_5 ; 0.2-15 percent of B_2O_3 where the total quantity of P_2O_5 and B_2O_3 is 15-35 percent; 0-40 percent (excluding 0 percent) of WO_3 ; 0-25 percent of Nb_2O_5 ; 2-10 percent of TiO_2 where the total quantity of WO_3 , Nb_2O_5 , and TiO_2 is 20-45 percent; 0-25 percent of BaO ; 0-20 percent of ZnO where the total quantity of BaO and ZnO is less than 30 percent; 2-30 percent of Li_2O ; 2-30 percent of Na_2O ; 0-15 percent of K_2O where the total quantity of Li_2O , Na_2O , and K_2O is 10-45 percent; 0-10 percent of CaO ; 0-10 percent of SrO ; 0-5 percent of Al_2O_3 ; 0-5 percent of Y_2O_3 ; 0-1 percent of Sb_2O_3 ; and 0-1 percent of As_2O_3 ; where the total quantity of all of the above-listed components is equal to or more than 94 percent.

166. (Previously Presented) A precision press molding glass preform composed of an optical glass exhibiting a refractive index in the range of from 1.75 to 2.0, an Abbé number in the range of from 20 to 28.5, a liquid phase temperature equal to or less than 970°C, and a transmittance λ_{80} is equal to or less than 500nm and a transmittance λ_5 is equal to or less than 385nm, wherein said optical glass has a composition comprising, as essential components, P_2O_5 , B_2O_3 , TiO_2 , Li_2O , Na_2O , and K_2O and comprises, as molar percentages, 12-34 percent of P_2O_5 ; 0.2-15 percent of B_2O_3 where the total quantity of P_2O_5 and B_2O_3 is 15-35 percent; 0-40 percent (excluding 0 percent) of WO_3 ; 0-25 percent of Nb_2O_5 ; 2-10 percent of TiO_2 where the total quantity of WO_3 , Nb_2O_5 , and TiO_2 is 20-45 percent; 0-25 percent of BaO ; 0-20 percent of ZnO where the total quantity of BaO and ZnO is less than 30 percent; 2-30 percent of Li_2O ; 2-30 percent of Na_2O ; 1-15 percent of K_2O where the total quantity of Li_2O , Na_2O , and K_2O is 10-45 percent; 0-10 percent of CaO ; 0-10 percent of SrO ; 0-5 percent of Al_2O_3 ; 0-5 percent of Y_2O_3 ; 0-1 percent of Sb_2O_3 ; and 0-1 percent of As_2O_3 ; where the total quantity of all of the above-listed components is equal to or more than 94 percent.

167. (Previously Presented) A precision press molding glass preform composed of an optical glass having a composition comprising, as essential components, P_2O_5 , B_2O_3 , Nb_2O_5 , TiO_2 , Li_2O , Na_2O , and K_2O and comprising, as molar percentages, 15-30 percent of P_2O_5 ; 0.5-15 percent of B_2O_3 ; 5-25 percent of Nb_2O_5 ; 0-40 percent of WO_3 ; 2-10 percent of TiO_2 ; 4-45 percent of at least one R'_2O selected from the group consisting of Li_2O , Na_2O , and K_2O where the quantity of Li_2O is 2-30 percent, the quantity of Na_2O is 2-30 percent, and the quantity of K_2O is 1-15

percent; and 0-30 percent (excluding 30 percent) of at least one RO selected from the group consisting of BaO, ZnO, and SrO; with the total content of the above-stated components being equal to or more than 95 percent.

168. (Previously Presented) A precision press molding glass preform composed of an optical glass exhibiting a refractive index in the range of from 1.80 to 2.0 and an Abbé number in the range of from 20 to 32, wherein said optical glass has a composition comprising, as essential components, P_2O_5 , B_2O_3 , Nb_2O_5 , WO_3 , TiO_2 , Li_2O , Na_2O , and K_2O , and comprises, as molar percentages, 15-30 percent of P_2O_5 ; 0.5-15 percent of B_2O_3 ; 5-25 percent of Nb_2O_5 ; 0-40 percent (excluding 0 percent) of WO_3 ; not more than 10 percent of TiO_2 ; 4-45 percent of at least one R'_2O selected from the group consisting of Li_2O , Na_2O , and K_2O where the quantity of Li_2O is 2-30 percent, the quantity of Na_2O is 2-30 percent, and the quantity of K_2O is 1-15 percent; and 0-30 percent (excluding 0 percent and 30 percent) of at least one RO selected from the group consisting of BaO, ZnO, and SrO.

169. (Previously Presented) A precision press molding glass preform composed of an optical glass comprising, as molar percentages, 12-34 percent of P_2O_5 ; 0.2-15 percent of B_2O_3 where the total quantity of P_2O_5 and B_2O_3 is 15-35 percent; 2-40 percent of WO_3 ; 0-25 percent of Nb_2O_5 ; 2-10 percent of TiO_2 where the total quantity of WO_3 , Nb_2O_5 , and TiO_2 is 20-45 percent; 0-25 percent of BaO; 0-20 percent of ZnO where the total quantity of BaO and ZnO is less than 30 percent; 2-30 percent of Li_2O ; 2-30 percent of Na_2O ; 1-15 percent of K_2O where the total quantity of Li_2O , Na_2O , and K_2O is 29-45 percent; 0-10 percent of CaO; 0-10 percent

of SrO; 0-5 percent of Al_2O_3 ; 0-5 percent of Y_2O_3 ; 0-1 percent of Sb_2O_3 ; and 0-1 percent of As_2O_3 ; where the total quantity of all of the above-listed components is equal to or more than 94 percent.

170. (Previously Presented) A precision press molding glass preform composed of an optical glass comprising, as molar percentages, 12-34 percent of P_2O_5 ; 0.2-15 percent of B_2O_3 where the total quantity of P_2O_5 and B_2O_3 is 15-35 percent; 2-40 percent of WO_3 ; 0-25 percent of Nb_2O_5 ; 2-10 percent of TiO_2 where the total quantity of WO_3 , Nb_2O_5 , and TiO_2 is 20-45 percent; 0-11 percent of BaO; 0-20 percent of ZnO where the total quantity of BaO and ZnO is less than 30 percent; 2-30 percent of Li_2O ; 2-30 percent of Na_2O ; 1-15 percent of K_2O where the total quantity of Li_2O , Na_2O , and K_2O is 10-45 percent; 0-10 percent of CaO; 0-10 percent of SrO; 0-5 percent of Al_2O_3 ; 0-5 percent of Y_2O_3 ; 0-1 percent of Sb_2O_3 ; and 0-1 percent of As_2O_3 ; where the total quantity of all of the above-listed components is equal to or more than 94 percent.

171. (Previously Presented) An optical part composed of the optical glass of claim 125.

172. (Previously Presented) An optical part composed of the optical glass of claim 126.

173. (Previously Presented) An optical part composed of the optical glass of claim 127.

174. (Previously Presented) An optical part composed of the optical glass of claim 128.

175. (Previously Presented) An optical part composed of the optical glass of claim 129.

176. (Previously Presented) An optical part composed of the optical glass of claim 130.

177. (Previously Presented) An optical part composed of the optical glass of claim 131.

178. (Previously Presented) An optical part composed of the optical glass of claim 132.

179. (Previously Presented) An optical part composed of the optical glass of claim 133.

180. (Previously Presented) An optical part composed of the optical glass of claim 134.

181. (Previously Presented) An optical part composed of the optical glass of claim 135.

182. (Previously Presented) An optical part composed of the optical glass of claim 136.

183. (Previously Presented) An optical part composed of the optical glass of claim 137.

184. (Previously Presented) An optical part composed of the optical glass of claim 138.

185. (Previously Presented) An optical part composed of the optical glass of claim 139.

186. (Previously Presented) An optical part composed of the optical glass of claim 140.

187. (Previously Presented) An optical part prepared by precisely press molding the precision press molding glass preform of claim 141.

188. (Previously Presented) An optical part prepared by precisely press molding the precision press molding preform glass of claim 142.

189. (Previously Presented) An optical part prepared by precisely press molding the precision press molding preform glass of claim 143.

190. (Previously Presented) An optical part prepared by precisely press molding the precision press molding preform glass of claim 144.

191. (Previously Presented) An optical part prepared by precisely press molding the precision press molding preform glass of claim 145.

192. (Previously Presented) An optical part prepared by precisely press molding the precision press molding preform glass of claim 146.

193. (Previously Presented) An optical part prepared by precisely press molding the precision press molding preform glass of claim 147.

194. (Previously Presented) An optical part prepared by precisely press molding the precision press molding preform glass of claim 148.

195. (Previously Presented) An optical part prepared by precisely press molding the precision press molding preform glass of claim 149.

196. (Previously Presented) An optical part prepared by precisely press molding the precision press molding preform glass of claim 150.

197. (Previously Presented) An optical part prepared by precisely press molding the precision press molding preform glass of claim 151.

198. (Previously Presented) An optical part prepared by precisely press molding the precision press molding preform glass of claim 152.

199. (Previously Presented) An optical part prepared by precisely press molding the precision press molding preform glass of claim 153.

200. (Previously Presented) An optical part prepared by precisely press molding the precision press molding preform glass of claim 154.

201. (Previously Presented) An optical part prepared by precisely press molding the precision press molding preform glass of claim 155.

202. (Previously Presented) An optical part prepared by precisely press molding the precision press molding preform glass of claim 156.

203. (Previously Presented) An optical part prepared by precisely press molding the precision press molding preform glass of claim 157.

204. (Previously Presented) An optical part prepared by precisely press molding the precision press molding preform glass of claim 158.

205. (Previously Presented) An optical part prepared by precisely press molding the precision press molding preform glass of claim 159.

206. (Previously Presented) An optical part prepared by precisely press molding the precision press molding preform glass of claim 160.

207. (Previously Presented) An optical part prepared by precisely press molding the precision press molding preform glass of claim 161.

208. (Previously Presented) An optical part prepared by precisely press molding the precision press molding preform glass of claim 162.

209. (Previously Presented) An optical part prepared by precisely press molding the precision press molding preform glass of claim 163.

210. (Previously Presented) An optical part prepared by precisely press molding the precision press molding preform glass of claim 164.

211. (Previously Presented) An optical part prepared by precisely press molding the precision press molding preform glass of claim 165.

212. (Previously Presented) An optical part prepared by precisely press molding the precision press molding preform glass of claim 166.

213. (Previously Presented) An optical part prepared by precisely press molding the precision press molding preform glass of claim 167.

214. (Previously Presented) An optical part prepared by precisely press molding the precision press molding preform glass of claim 168.

215. (Previously Presented) An optical part prepared by precisely press molding the precision press molding preform glass of claim 169.

216. (Previously Presented) An optical part prepared by precisely press molding the precision press molding preform glass of claim 170.